

IN THE CLAIMS:

Please enter the following clarified Claims 1-10.

1.(Once Amended) An electric conductivity beam used for separating and extracting a minute micro-sample from a specimen substrate in vacuum space, beam comprising:

a plurality of branch beams having an electric conductivity formed at a tip of said beam;

wherein said branch beams are separated from each other by a distance which is smaller than a thickness of a minute micro-sample to be held between said branch beams when said beam is moved in the direction of the minute micro-sample and said branch beams being forcibly spread by the minute micro-sample so that the minute micro-sample is held by a resiliency force of said branch beams.

2.(Once Amended) An electric conductivity beam according to claim 1;

wherein the minute micro-sample held between said branch beams is put on a sample holder for storing the micro-sample and said sample holder and said beam are moved relative to one another so that the minute micro-sample held between said branch beams is removed from said branch beams as the minute micro-sample being trapped by a part of said sample holder.

3.(Once Amended) An equipment for specimen fabrication, comprising:

a stage for mounting a specimen thereon;

a microscope for specifying a position to cut a minute micro-sample from the specimen and for monitoring operations of cutout of the minute micro-sample from the specimen;

a sample hold system having an electric conductivity beam, at a top of which a plurality of branch beams having an electric conductivity are formed; and

a control system for controlling the position and rotation of said beam;

wherein said branch beams are separated from each other by a distance which is smaller than a thickness of the minute micro-sample to be held between said branch beams when said beam is moved in the direction of the minute micro-sample and said branch beams being forcibly spread by the minute micro-sample so that the minute micro-sample is held by a resiliency force of said branch beams.

4.(Once Amended) An equipment for specimen fabrication, comprising:

a stage for mounting a specimen thereon;

a microscope for specifying a position to cut a minute micro-sample from the specimen and for monitoring operations of cutout of the minute micro-sample from the specimen;

a sample hold system having an electric conductivity beam, at a top of which a plurality of branch beams having an electric conductivity are formed;

a detector for detecting that the top of said branch beams has come into contact with the minute micro-sample which is cut out from the specimen; and

a driver for moving the beam in the direction of the stage in a predetermined amount based on the signal from the detector according to the detection of contact of the top of said branch beams and the minute micro-sample;

wherein said branch beams are separated from each other by a distance which is smaller than a thickness of the minute micro-sample to be held between said branch beams when said beam is moved in the direction of the minute micro-sample and said branch beams being forcibly spread by the minute micro-sample so that the minute micro-sample is held by a resiliency force of said branch beams.

5.(Once Amended) The equipment for specimen fabrication according to claim 3;

wherein said microscope is at least one of an optical microscope, a scanning electron microscope, and a scanning ion microscope.

6.(Once Amended) A method for specimen fabrication, comprising:

mounting a specimen on a stage;

cutting a minute micro-sample from said specimen;

contacting a top of electric conductivity branch beams which are formed at a top of an electric conductivity beam to a part of the minute micro-sample cutout from the specimen;

detecting that the top of said branch beams has come into contact with the minute micro-sample;

moving the beam in the direction of the stage in a predetermined amount based on the signal from the detector according to the detection of contact of the top of said branch beams and the minute micro-sample; and

moving the beam in the reverse direction to the stage after the minute micro-sample is held by a resiliency force of said branch beams;

wherein said branch beams are separated from each other by a distance which is smaller than a thickness of the minute micro-sample to be held between said branch beams when said beam is moved in the direction of the minute micro-sample and said branch beams being forcibly spread by the minute micro-sample so that the minute micro-sample is held by the resiliency force of said branch beams.

7.(Once Amended) The method for specimen fabrication according to claim 6, comprising:

transferring the minute micro-sample held by said branch beams onto a sample holder for mounting the minute micro-sample thereon;

storing the minute micro-sample on the sample holder; and

moving said sample holder and said beam relative to one another so that the minute micro-sample held between said branch beams is removed from said branch beams and the minute micro-sample being trapped by a part of said sample holder.

8.(Once Amended) A method for specimen fabrication, comprising:

mounting a specimen substrate on a stage;

cutting a minute micro-sample from said specimen;

holding the minute micro-sample at the top of electric conductivity branch beams which are formed at a top of an electric conductivity beams;

extracting the minute micro-sample held by a restoring force of said branch beams from the specimen;

processing an extracted minute micro-sample by an irradiation with a charged beam; and

storing a processed minute micro-sample on a mounting holder on the specimen stage.

9.(Once Amended) An equipment for specimen fabrication, comprising:

a charged particle beam source;

an optical means for converging a charged particle beam from the charged particle beam source;

a specimen stage for mounting a specimen to be irradiated with the converged beam; and

a sample hold system having a system holding a minute micro-sample at a top of electric conductivity branch beams which are formed at a top of an electric conductivity beams mounted obliquely above the specimen stage.

10.(Once Amended) An equipment for specimen fabrication, comprising:

an ion beam source;

an objective lens for irradiating an ion beam from the ion beam source to a specimen;

a specimen stage for mounting the specimen thereon; and

a sample hold system having a system holding a minute micro-sample at a top of electric conductivity branch beams which are formed at a top of an electric conductivity beams and mounted within a range of from 15 degrees to 65 degrees relative to the specimen stage surface.

Please add new Claims 11-21, as follows.

11.(New) The equipment for specimen fabrication according to claim 4:
wherein said microscope is ^{as cons. 6018} any of an optical microscope, a scanning electron microscope, and a scanning ion microscope.

12.(New) An electric conductivity beam used for separating and extracting a minute micro-sample from a specimen substrate in vacuum space according to claim 1;

Ac/ wherein said plurality of branch beams are formed at a tip of said beam by cutting the tip of said beam so that a deep cut is formed between said plurality of branch beams.

13.(New) An electric conductivity beam used for separating and extracting a minute micro-sample from a specimen substrate in vacuum space according to claim 1;

wherein said beam is held by a metal beam which has a diameter larger than that of said beam and said metal beam is held by a detachable holder which has a diameter larger than that of said metal beam so that said beam can be held to or removed from said detachable holder.

14.(New) An electric conductivity beam used for separating and extracting a minute micro-sample from a specimen substrate in vacuum space according to claim 2;

wherein said plurality of branch beams are formed at a tip of said beam by cutting the tip of said beam so that a deep cut is formed between said plurality of branch beams.

15.(New) An electric conductivity beam used for separating and extracting a minute micro-sample from a specimen substrate in vacuum space according to claim 2;

wherein said beam is held by a metal beam which has a diameter larger than that of said beam and said metal beam is held by a detachable holder which has a diameter larger than that of said metal beam so that said beam can be held to or removed from said detachable holder.

16.(New) An electric conductivity beam used for separating and extracting a minute micro-sample from a specimen substrate in vacuum space according to claim 1;

wherein said plurality of branch beams are formed at a tip of said beam by cutting the tip of said beam so that two deep cuts are formed crossed with each other between said plurality of branch beams and each width of said two deep cuts are different.

17.(New) An electric conductivity beam used for separating and extracting a minute micro-sample from a specimen substrate in vacuum space according to claim 2;

wherein said plurality of branch beams are formed at a tip of said beam by cutting the tip of said beam so that two deep cuts are formed crossed with each other between said plurality of branch beams and each width of said two deep cuts are different.

18.(New) An electric conductivity beam used for separating and extracting a minute micro-sample from a specimen substrate in vacuum space according to claim 12;

wherein the thickness of said minute micro-sample is taken into account in setting a width of said deep cut so that said branch beams are separated from each other by the distance which is smaller than the thickness of said minute micro-sample.

19.(New) An electric conductivity beam used for separating and extracting a minute micro-sample from a specimen substrate in vacuum space according to claim 14;

wherein the thickness of said minute micro-sample is taken into account in setting a width of said deep cut so that said branch beams are separated from each other by the distance which is smaller than the thickness of said minute micro-sample.

20.(New) An electric conductivity beam used for separating and extracting a minute micro-sample from a specimen substrate in vacuum space according to claim 16;

wherein the thickness of said minute micro-sample is taken into account in setting a width of at least one deep cut of said two deep cuts so that said branch beams are separated from each other by the distance which is smaller than the thickness of said minute micro-sample.

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21.(New) An electric conductivity beam used for separating and extracting a minute micro-sample from a specimen substrate in vacuum space according to claim 17;

wherein the thickness of said minute micro-sample is taken into account in setting a width of at least one deep cut of said two deep cuts so that said branch beams are separated from each other by the distance which is smaller than the thickness of said minute micro-sample.

IN THE ABSTRACT:

Please enter the clean copy of the replacement Abstract attached hereto as a separate page.

REMARKS

This Amendment is responsive to the Office Action identified above, and is responsive in any other manner indicated below.

REPLACEMENT ABSTRACT - NOT EXCEEDING 150 WORDS

01- While no objection was made to the Abstract of the Disclosure, Applicant herewith provides a replacement Abstract which complies with the 37 CFR 1.72(b)